

Application Type Renewal
Facility Type Sewage
Major / Minor Major

**NPDES PERMIT FACT SHEET
ADDENDUM**

Application No. PA0026255
APS ID 716713
Authorization ID 829021

Applicant and Facility Information

Applicant Name	<u>Allegheny Valley Joint Sewer Authority</u>	Facility Name	<u>Allegheny Valley Joint Sewer Authority STP</u>
Applicant Address	<u>2400 Freeport Road PO Box 158</u> <u>Cheswick, PA 15024-0158</u>	Facility Address	<u>2400 Freeport Road</u> <u>Cheswick, PA 15024</u>
Applicant Contact	<u>Richard Chiavetta</u>	Facility Contact	<u>Richard Chiavetta</u>
Applicant Phone	<u>(412) 828-7227</u>	Facility Phone	<u>(412) 828-7227</u>
Client ID	<u>82759</u>	Site ID	<u>714426</u>
SIC Code	<u>4952</u>	Municipality	<u>Harmar Township</u>
SIC Description	<u>Trans. & Utilities - Sewerage Systems</u>	County	<u>Allegheny</u>
Date Published in PA Bulletin	<u>4/12/2014</u>	EPA Waived?	<u>No</u>
Comment Period End Date	<u>5/27/2014</u>	If No, Reason	<u>Major Facility, Pretreatment, Receives O&G Wastewater</u>
Purpose of Application	<u>Application for a renewal of an NPDES permit for discharge of treated Sewage.</u>		

Internal Review and Recommendations

The draft permit was issued on March 17, 2014. The public notice for the draft was published in the PA Bulletin on April 12, 2014. During the comment period, EPA had the following comments on the draft permit.

1. This facility has a design flow of greater than 5 mgd, and therefore the pretreatment regulations set forth in 40 CFR Part 403 require that it develop and implement an approved pretreatment program unless it has no industrial users in its service area that would be covered by the program. While the permit application shows no significant industrial users, as a recommendation, the facility should conduct an industrial waste survey (or submit the results of a recently conducted survey) to demonstrate that the exemption is still appropriate.

Response: Based on the recommendation from EPA, the following condition was included in Part C conditions in the permit.

Within 1 year of issuance of the permit, permittee shall submit the results of an industrial waste survey of the users of the entire area served by the permittee's treatment plant. The submission shall include a description of the procedures used to conduct the survey, a master list of all industrial users of the system, a brief description of the operations at each industrial user, an assessment of whether the industrial user meets the definition of a significant industrial user (see 40 CFR 403.3(v)), and a brief description of why the industrial user does or does not meet the definition of a significant industrial user.

2. An evaluation of the reasonable potential for acute and chronic toxicity due to the effluent is included in the fact sheet. If reasonable potential is documented, then WET limits shall be established and WET testing requirements shall be included in the draft permit. There is not enough information for us to determine whether or not additional chronic effluent limitations should be imposed in the draft permit. Please explain results from quarters 1, 2, and 3.

Statistical Endpoint

<u>Acute</u>	<u>Chronic</u>
<u>LC/EC₅₀</u>	<u>EC/IC₂₅</u>
<u>NOAEC</u>	<u>NOEC</u>
<u>Pass/Fail</u>	<u>Pass/Fail</u>

Response: Evaluation of WET Testing Results is revised to verify any reasonable potential for acute and chronic toxicity due to effluent. All of the results were found greater than both of TIWC (acute 13.14% and chronic 0.60%). Therefore, there is no reasonable potential for an excursion above water quality standards.

Internal Review and Recommendations

For Outfall 001, ☐ **Acute** ☒ **Chronic** WET Testing was completed:

- ☒ For the permit renewal application (4 tests).
☐ Quarterly throughout the permit term.
☐ Quarterly throughout the permit term and a TIE/TRE was conducted.
☐ Other:

The dilution series used for the tests was: 100%, 50%, 25%, 12.5%, and 6.25%. The Target Instream Waste Concentration (TIWC) to be used for analysis of the results: 13.14% (Acute), 0.60% (Chronic)

Summary of Four Most Recent Test Results

(NOTE – Enter results into one table, depending on which data analysis method was used).

NOEC/LC50 Data Analysis

Test Date	Ceriodaphnia Results (% Effluent)			Pimephales Results (% Effluent)			Pass? *
	NOEC Survival	NOEC Reproduction	LC50	NOEC Survival	NOEC Growth	LC50	
July 21-28, 2009	100	25	100	100	100	100	Yes
Aug 25-Sep 1, 2009	100	50	100	100	100	100	Yes
Sep 29-Oct 6, 2009	100	100	100	100	50	100	Yes
Oct 27-Nov 3, 2009	100	100	100	100	100	100	Yes

* A "passing" result is that which is greater than or equal to the TIWC value.

Is there reasonable potential for an excursion above water quality standards based on the results of these tests? (NOTE – In general, reasonable potential is determined anytime there is at least one test failure in the previous four tests).

☐ YES ☒ NO

Comments: All of the results above are greater than both of TIWC Acute of 13.14% and TIWC Chronic of 0.60%. Therefore, there is no reasonable potential for an excursion above water quality standards.

Evaluation of Test Type, IWC and Dilution Series for Renewed Permit

Acute Partial Mix Factor (PMFa): **0.071**

Chronic Partial Mix Factor (PMFc): **0.495**

1. Determine IWC – Acute (IWCa):

$$(Q_d \times 1.547) / ((Q_{7-10} \times \text{PMFa}) + (Q_d \times 1.547))$$

$$[(5.5 \text{ MGD} \times 1.547) / ((2900 \text{ cfs} \times 0.071) + (5.5 \text{ MGD} \times 1.547))] \times 100 = \mathbf{3.94\%}$$

Is IWCa < 1%? ☐ YES ☒ NO **(YES - Acute Tests Required OR NO - Chronic Tests Required)**

Type of Test for Permit Renewal: Chronic

2a. Determine Target IWCa (If Acute Tests Required)

Internal Review and Recommendations

$$TIWCa = IWCa / 0.3 = 13.14 \%$$

2b. Determine Target IWCc (If Chronic Tests Required)

$$(Q_d \times 1.547) / (Q_{7-10} \times PMFc) + (Q_d \times 1.547)$$

$$[(5.5 \text{ MGD} \times 1.547) / ((2900 \text{ cfs} \times 0.495) + (5.5 \text{ MGD} \times 1.547))] \times 100 = 0.59\% \approx 0.6\%$$

3. Determine Dilution Series

(NOTE – check Attachment C of WET SOP for dilution series based on TIWCa or TIWCc, whichever applies).

Dilution Series = 100%, 60%, 30%, 2%, and 1%.

WET Limits

Has reasonable potential been determined? ☐ YES ☒ NO

Will WET limits be established in the permit? ☐ YES ☒ NO

During the commenting period, the Engineer from AVJSA requested the Department for an extension of 120 days to the final issuance of this NPDES permit for the permittee to install automatic flow proportional composite samplers to allow AVJSA to collect 24 hour flow composite samples of the influent. The extension was duly granted and the Authority has confirmed to the Department on October 21, 2014, that the Influent automatic sampler is now fully operational and capable of taking flow proportionate composite samples as required by the draft permit.

Also, to mention that this plant had various effluent violations, sanitary sewer overflows, hydraulic overloads, malodors, and unauthorized indirect discharges during the period of December of 2010 through December of 2012. In order to pursue corrective actions for these various violations of the NPDES Permit, a Consent Order and Agreement (COA) was entered into July 28, 2014 by the Department, the Allegheny County Health Department and the Allegheny Valley Joint Sewage Authority.

Approve	Return	Deny	Signatures	Date
			Harris Mahmud / Civil Engineering Specialist	
			Donald J. Leone, P.E. / Environmental Engineer Manager	
			Christopher Kriley, P.E. / Program Manager	